

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

Applicant: BORRAN et al.

Title: METHOD AND APPARATUS TO  
ESTABLISH CONSTELLATIONS FOR  
IMPERFECT CHANNEL STATE  
INFORMATION AT A RECEIVER

Appl. No.: 10/523,167

International Filing Date: 5/29/2003  
371(c) Date: 3/10/2006

Examiner: Kevin Michael Burd

Art Unit: 2611

Confirmation Number: 8220

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to

antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

### **TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of either a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

### **RELEVANCE OF EACH DOCUMENT**

Some of the documents cited were cited as being relevant during the prosecution of related United States Issued Patent 7,394,865 and United States Patent Application 10/671,346.

Copies of the International Search Report and International Preliminary Examination Report for PCT/IB03/02088, PCT counterpart of United States Patent Application 10/671,346; the International Search Report and Written Opinion for PCT/IB2004/01566 and Supplementary European Search Report for EP 03 73 5862, the PCT and EP counterparts of 10/523,167; and the International Search Report and Written Opinion, the International Preliminary Examination Report for PCT/US04/19909 and the Supplementary European Search Reports for EP 04 75 5820, the PCT and EP counterparts of United States Issued Patent 7,394,865 are attached setting forth the portion of each document considered relevant by the examiner.

A copy of the Korean Office Action with the English translations for the related Korean Application 2007-702553, is attached setting forth the portion of each document considered relevant by the examiner. An English-language counterpart of the foreign-language reference, U.S. Patent Publication Number 2002/0172184, has been provided. The absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language documents (37 CFR §1.98 and MPEP §609).

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

**FEE**

Fees in the amount of \$180.00 in accordance with 37 CFR §1.17(p) to cover the fee associated with an information disclosure statement under 37 CFR §1.97(c) are being paid by credit card via EFS-Web.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this submission under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

Date June 25, 2009

By 

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